the other of the second heat exchanger portions, such that the cooling air may flow in series through the other of the second heat exchanger portions and the second end of the first heat exchanger,

the second heat exchanger portions being operatively connected such that the second fluid may flow between the second manifold of the one of the second heat exchanger portions and the first manifold of the other of the second heat exchanger portions.

[c2]

2. The heat exchanger apparatus of claim 1 wherein the second heat exchanger portions are operatively connected such that fluid may flow between the second manifold of the one of the second heat exchanger portions and the first manifold of the other of the second heat exchanger portions around at least one side of the first heat exchanger.

[c3]

3. The heat exchanger apparatus of claim 1 wherein the second heat exchanger portions are operatively connected such that fluid may flow between the second manifold of the one of the second heat exchanger portions and the first manifold of the other of the second heat exchanger portions around both sides of the first heat exchanger.

[c4]

4. The heat exchanger apparatus of claim 1 wherein the dimension between the first and seconds ends of the second heat exchanger portions is less than the dimension from one side of the second heat exchanger portions to the other side of the second heat exchanger portions, such that the fluid-carrying tubes extend across the shorter dimension of the faces of the second heat exchanger portions.

[c5]

5. The heat exchanger apparatus of claim 1 wherein the manifolds of the second heat exchanger portions extend across the ends thereof, and substantially from one side of the first heat exchanger to the other side of the first heat exchanger.

[c6]

6. The heat exchanger apparatus of claim 1 wherein the first heat exchanger includes fluid-carrying tubes, the fluid-carrying tubes of the first heat exchanger extending in the same direction as the fluid-carrying tubes of each of the second heat exchanger portions.

[c7]

7. The heat exchanger apparatus of claim 1 wherein the sides of the first heat exchanger are adjacent each of the sides of the second heat exchanger portions, and wherein the first end of the first heat exchanger is adjacent the first end of the one of the second heat exchanger portions and the second end of the first heat exchanger is adjacent the second end of the other of the second heat exchanger portions.

[c8]

8. The heat exchanger apparatus of claim 1 wherein the second end of the one of the second heat exchanger portions is adjacent the first end of the other of the second heat exchanger portions.

[c9]

9. The heat exchanger apparatus of claim 1 wherein manifolds of the second heat exchanger portions extend horizontally, and the second heat exchanger portions are vertically separated.

[c10]

10. The heat exchanger apparatus of claim 1 wherein manifolds of the second heat exchanger portions extend vertically, and the second heat exchanger portions are horizontally separated.

[c11]

11. The heat exchanger apparatus of claim 1 wherein at least one of the sides or ends of the first heat exchanger extends outward of a side or end of one of the second heat exchanger portions.

[c12]

12. The heat exchanger apparatus of claim 1 wherein the first end of the first heat exchanger extends outward of the first end of the one of the second heat exchanger portions.

[c13]

13. The heat exchanger apparatus of claim 1 wherein the first end of the first heat exchanger extends outward of the first end of the one of the second heat exchanger portions and the second end of the first heat exchanger extends outward of the second end of the other of the second heat exchanger portions.

[c14]

14. The heat exchanger apparatus of claim 1 wherein at least one of the sides or ends of one of the second heat exchanger portions extends outward of a side or end of the first heat exchanger.

[c15]

15. The heat exchanger apparatus of claim 1 wherein the first heat exchanger is a radiator for cooling engine coolant and the second heat exchanger is a charge air cooler for cooling charge air, each of the radiator and the charge air cooler portions being cooled by ambient air.

[c16]

16. The heat exchanger apparatus of claim 1 wherein the first heat exchanger is a charge air cooler for cooling charge air and the second heat exchanger is radiator for cooling engine coolant, each of the charge air cooler portions and the radiator being cooled by ambient air.

[c17]

17. A combined radiator and charge air cooler package comprising:

a radiator for cooling engine coolant having opposite front and rear faces through which ambient air flows, opposite upper and lower ends adjacent the faces, and sides adjacent the faces between the first and second ends;

a charge air cooler for cooling charge air having upper and lower portions, each charge air cooler portion having opposite front and rear faces through which ambient air flows, opposite upper and lower ends adjacent the faces, and sides adjacent the faces between the upper and lower ends, and including manifolds at the upper and lower ends and charge air-carrying tubes extending substantially directly therebetween,

the upper charge air cooler portion being disposed in overlapping relationship and adjacent to the upper end of the radiator with the upper and lower ends of the upper charge air cooler portion being oriented in the same direction as the upper and lower ends of the radiator, wherein one face at the upper end of the radiator is disposed adjacent one face of the upper charge air cooler portion, such that the ambient air may flow in series through the upper end of the radiator and the upper charge air cooler portion,

the lower charge air cooler portion being disposed in overlapping relationship and adjacent to the lower end of the radiator with the upper and lower ends of the lower charge air cooler portion being oriented in the same direction as the upper and lower ends of the radiator, wherein the other face at the lower end of the radiator is disposed adjacent one face of the lower charge air cooler portion, such that the ambient air may flow in series through the lower charge air cooler portion and the lower end of the radiator,

the charge air cooler portions being operatively connected such that the charge air may flow between the lower manifold of the upper charge air cooler portion and the upper manifold of the lower charge air cooler portion.

[c18]

18. A method for cooling fluids used in an engine of a motor vehicle, comprising:

providing a heat exchanger assembly comprising:

a first heat exchanger for cooling a first fluid having opposite front and rear faces through which cooling air flows, opposite first and second ends adjacent the faces, and sides adjacent the faces between the first and second ends;

a second heat exchanger for cooling a second fluid having first and second portions, each second heat exchanger portion having opposite front and rear faces through which cooling air flows, opposite first and second ends adjacent the faces, and sides adjacent the faces between the first and second ends, and including manifolds at the first and second ends and fluid-carrying tubes extending substantially directly therebetween,

one of the second heat exchanger portions being disposed in overlapping relationship and adjacent to the first end of the first heat exchanger with the first and second ends of the one of the second heat exchanger portions being oriented in the same direction as the first and second ends of the first heat exchanger, wherein one face at the first end of the first heat exchanger is disposed adjacent one face of the one of the second heat exchanger portions,

the other of the second heat exchanger portions being disposed in overlapping relationship and adjacent to the second end of the first heat exchanger with the first and second ends of the other of the second heat exchanger portions being oriented in the same direction as the first and second ends of the first heat exchanger, wherein the other face at the second end of the first heat exchanger is disposed adjacent one face of the other of the second heat exchanger portions,

the second heat exchanger portions being operatively connected such that the second fluid may flow between the second manifold of the one of the second heat exchanger portion and the first manifold of the other of the second heat exchanger portions;

flowing the first fluid through the first heat exchanger;

flowing the second fluid through the substantially directly extending tubes of the second heat exchanger portions and between the second manifold of the one of the

second heat exchanger portions and the first manifold of the other of the second heat exchanger portions; and

flowing cooling air through the heat exchanger assembly such that the cooling air flows through both the first end of the first heat exchanger and the one of the second heat exchanger portions, and the cooling air flows through both the other of the second heat exchanger portions and the second end of the first heat exchanger, to cool the first fluid in the first heat exchanger and the second fluid in the second heat exchanger portions.

[c19]

19. The method of claim 18 wherein the second fluid flows in sequence through the second manifold of the other of the second heat exchanger portions, the substantially directly extending tubes of the other of the second heat exchanger portions, the first manifold of the other of the second heat exchanger portions, the second manifold of the one of the second heat exchanger portions, the substantially directly extending tubes of the one of the second heat exchanger portions, and the first manifold of the one of the second heat exchanger portions.

[c20]

20. The method of claim 19 wherein the cooling air flows sequentially first through the one of the second heat exchanger portions and subsequently through the first end of the first heat exchanger, and wherein the cooling air also flows sequentially first through the second end of the first heat exchanger and subsequently through the other of the second heat exchanger portions.

[c21]

21. The method of claim 18 wherein the second fluid flows in sequence through the first manifold of the one of the second heat exchanger portions, the substantially directly extending tubes of the one of the second heat exchanger portions, the second manifold of the one of the second heat exchanger portions, the first manifold of the other of the second heat exchanger portions, the substantially directly extending tubes of the other of the second heat exchanger portions, and the second manifold of the other of the second heat exchanger portions.

[c22]

22. The method of claim 21 wherein the cooling air flows sequentially first through the first end of the first heat exchanger and subsequently through the one of the second heat exchanger portions, and wherein the cooling air also flows sequentially first through the other of the second heat exchanger portions and subsequently through the second end of the first heat exchanger.

[c23]